



UNITED STATES PATENT AND TRADEMARK OFFICE

H'A

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/523,990	03/13/2000	Mou-Shiung Lin	MEG99-005	6138
28112	7590	08/25/2006	EXAMINER	
GEORGE O. SAILE & ASSOCIATES			WALSH, DANIEL I	
28 DAVIS AVENUE			ART UNIT	
POUGHKEEPSIE, NY 12603			PAPER NUMBER	
			2876	

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/523,990	Applicant(s) LIN ET AL.	
	Examiner Daniel I. Walsh	Art Unit 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt is acknowledged of the Amendment received on 2 June 2006.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 32, 43, and 52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how/why the chip has two surfaces with pads. For purposes of examination the examiner has interpreted different sides of the chip as surfaces with pads/terminals.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 50-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Hiromasa (JP362169448A).

Hirromasa teaches a semiconductor chip having a surface with a mark comprising a number, barcode, or identity for a product or manufacturer and a protecting structure over the mark, wherein the mark is visible through the protecting structure (FIG. 1). The Examiner has interpreted the terminals 5 as pads, that are disposed on opposite sides (claims 51-52).

4. Claims 50-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Sono et al. (JP405267482).

Sono et al. teaches a chip having a surface with a mark comprising a number, barcode, or identity of a product or manufacturer, a protecting structure over the mark where the mark is visible through the structure, and multiple pads on two surfaces (FIG. 1). The Examiner has interpreted the terminals 12 as pads, on multiple surfaces (sides).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 26-45 and 47-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nevill (US 5,984,190).

Re claim 26, Nevill teaches an electronic package with a mark and reading the mark using a laser code reader (FIG. 1+ and col 3, lines 5+). Though silent to a laser reader, Nevill teaches use of known optical code readers, whether currently well known or subsequently developed. The examiner notes that laser readers are well known and conventional in the art for reading codes. One would have been motivated to use a laser code reader in order to have a well know and recognizable means of reading codes, with a large operating range that is easy to use.

Re claim 27, Nevill teaches the optical identification code can be any of a wide variety of machine-readable optical identification codes whether currently well known or subsequently developed (col 3, lines 1+). Though silent to barcodes, the Examiner notes barcodes for storing machine readable information are well known and conventional in the art, and are an obvious expedient for a low cost, accurate, and familiar means to read data from and encode data.

Re claims 28-29, Nevill teaches the mark can include identification information identical to the chip (abstract). Though silent to a manufacturer or identity for the product, (col 1, lines 37+) teaches various information is included on chip packages including manufacturing lot information, product type, etc. The Examiner notes that it would have been an obvious expedient to include the claimed information as a means to provide identification information for the chip, to identify the product.

Re claim 30, the Examiner notes that Nevill teaches the barcode can be an adhesive label 14. Though silent to having a protecting structure, the Examiner notes that it is well known and conventional in the art for barcode labels to be covered with a transparent film/layer to protect the code from being worn. At the time the invention was made, it would have been obvious to have such a layer/film, interpreted as a protecting structure, to protect the barcode from wear.

Re claim 31-32, the Examiner notes that the package 20 has leads 22 connected to the chip. It would have been obvious that the chip have pads/conductors connecting to the leads in order to effect flow of electricity.

Re claims 33-45 and 47-52, the limitations have been discussed above. Re claims 35, 36, 40, 41, 47, and 48, though silent to the specifics of the data encoded in the barcode, the Examiner notes that the structure of a barcode has been taught. The particular information encoded in the barcode is an issue of printed matter/intended and does not distinguish itself from the barcode structure of the prior art, as it is merely to provide types of information, and as such, is not a patentable difference (see in re Ngai and Gulack). It is not functionally related to the structure that it's on.

6. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nevill, as discussed above, in view of Miyauchi et al. (US 5,539,976).

Re claim 46, the teachings of Nevill have been discussed above.

Nevill is silent to numbers.

Barcodes on circuits including numbers are taught by Miyauchi et al. (FIG. 1).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Nevill with those of Miyauchi et al.

One would have been motivated to do this to provide human readable information, for verification, for example.

7. Claims 26, 28-32, 44, 46, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiromasa (JP362169448A), in view of Nevill, as discussed above.

Re claim 26, Hiromasa, as discussed in the previous Office Actions teaches an electronic package with a mark (abstract and constitution).

Hiromasa is silent to the mark being laser readable.

The teachings of Nevill have been discussed above, including laser readability.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Hiromasa with those of Nevill.

One would have been motivated to do this in order to encode more information and to link to other information, for example.

Re claims 28-29, the teachings of Hiromasa teach markings, but are silent to them comprising an identity for the product/manufacturer. The Examiner notes that it would have been obvious for product markings to convey such data, as a means to convey relevant product information, and is an obvious expedient well within the skill in the art.

Re claim 30, the Examiner notes that Hiromasa teaches a protecting structure 26 provided over the mark where the mark is visible through the structure.

Re claim 31, the Examiner notes that the teaching of Hiromasa teaches terminals, interpreted as pads (FIG. 1).

Re claim 32, though silent to a chip with pads on more surfaces, the Examiner notes that it would have been obvious one of ordinary skill in the art to apply the teachings to other

shaped/configured chips, including those with multiple padded surfaces, in order to impart the identifying means as taught above to different structured chips.

Re claim 44, 46, 47, and 48, the limitations have been discussed above.

8. Claims 26, 27, 30-48, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyauchi et al. (US 5,539,976).

Re claim 26, Miyauchi et al. teaches an electronic package with a mark readable by a barcode reader (FIG. 1). Though silent to a laser reader, the Examiner notes it is well known in the art that barcodes can be read by laser readers (grocery stores, convenient stores, etc). One would have been motivated to use a laser reader for ease of use, familiarity, and extended range.

Re claim 27, a barcode has been discussed above re claim 24.

Re claim 30, the Examiner notes that the chip with mark has been discussed above. Though silent to a protecting structure over the mark, the Examiner notes that clear/transparent protective layers/films are well known and conventional to be applied over indicia such as barcodes, in order to protect the codes from the elements, damage, etc. It would have been obvious to include such a coating/layer on top of a barcode in order to protect the barcode from damage.

Re claims 31-32, the Examiner notes that the chip is interpreted as having pads/terminals for electrical connection. Though silent to a particular chip that had pads on multiple surfaces, the Examiner notes that the prior art teaches a barcode that can be applied to a semiconductor chip/device. It would have been well within the ordinary skill in the art to apply the identification indicia to other structured semiconductor chips, as a means to provide

identification information to other chips, including those with multiple surfaces having pads thereon.

Re claims 33-36, the Examiner notes that the limitations have been discussed above. Though silent to the specifics of the data encoded in the barcode (re claims 35-36), the Examiner notes that the structure of a barcode has been taught. The particular information encoded in the barcode is an issue of printed matter and does not distinguish itself from the barcode structure of the prior art, as it is merely to provide information, and as such, is not a patentable difference (see in re Ngai and Gulack). The printed matter is not structurally related to the package.

Re claims 37-45, 47-48, and 50-52 the limitations have been discussed above.

Re claim 46, Miyauchi et al. teaches a number (FIG. 1).

9. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyauchi et al., as discussed above, in view of Sono et al. (JP05267482).

The teachings of Miyauchi et al. have been discussed above.

Though silent to the barcode comprising an identity for a product or manufacturer, the Examiner notes that it is well known and conventional in the art to provide product information on the barcode of the product. One would have been motivated to do this to provide information for accuracy, convenience, validation, etc. Additionally, the examiner notes that the prior art teaches the claimed structure, and that the printed indicia thereon would have been a matter of design variation, obvious to one of ordinary skill in the art to convey information.

Nonetheless, the Examiner notes Sono et al. teaches the barcode can record information as everyone knows, include user information, product management information, part number

(paragraph [0021]). Accordingly, the Examiner notes that it is obvious and known in the art that barcodes can provide numerous types of information related to the product.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Miyauchi et al. with those of Sono et al. in order to record specific types of information.

10. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyauchi et al., as discussed above, in view of Ackley (US 6,478,223).

Re claim 49, the teachings of Miyauchi et al. have been discussed above.

Miyauchi et al. is silent to a colored mark.

Ackley teaches color barcode (abstract).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to combine the teachings of Miyauchi et al. with those of Ackley.

One would have been motivated to do this to encode more data, for example.

11. Claims 26-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sono et al. (JP05267482).

Sono et al. teaches an electronic package with a mark and reading the mark using a barcode reader (Purpose and Constitution). Though silent to a laser barcode reader, the Examiner notes it would have been obvious to one of ordinary skill in the art to use a laser barcode reader for ease of use and providing visual indications of scanning.

Re claim 27, barcodes are taught (15,16).

Re claims 28-29, Sono et al. teaches product management information, user information, part number (paragraph [0004 and [0021]) is on the barcode. This is interpreted as an identity of

the product. Though silent to an identity of the manufacturer, it is well known to encode identifying information into barcodes. Accordingly, it would have been obvious to one of ordinary skill in the art to include manufacturer information, as a means to provide additional product information.

Re claim 30, a protecting structure (18,19) is transparent.

Re claims 31-32, the Examiner notes that FIG. 1 shows multiple terminals connected, interpreted as having pads. Though silent to other surfaces with multiple pads, the Examiner notes that the different sides of the chip can be interpreted as different surfaces with the terminals/pads. Additionally, it would have been obvious to include such barcode means on different structured chips, including those with different surface configurations/pads/terminals, in order to provide identifying information to chips.

Re claims 33-45, 47, 48, the limitations have been discussed above. Re claims 35, 36, 40, 41, and 47 though silent to the specifics of the data encoded in the barcode, the Examiner notes that the structure of a barcode has been taught. The particular information encoded in the barcode is an issue of printed matter/intended and does not distinguish itself from the barcode structure of the prior art, as it is merely to provide types of information, and as such, is not a patentable difference (see in re Ngai and Gulack). It is not functionally related to the structure.

Re claim 46, Sono et al. teaches numbers (FIG. 1).

Response to Arguments

12. Applicant's arguments with respect to claim have been considered but are moot in view of the new ground(s) of rejection.

In response to the Applicants argument that the markings are not readable by machine/electronically, the Examiner notes the newly cited art teaches machine-readable indicia/codes.

In response to the applicants arguments that the prior art does not teach the barcodes are readable by a laser scanner, the Examiner notes that the prior art cited above teaches well-known scanners (interpreted as including lasers). Though the prior art that is silent to the type of barcode reader, the Examiner notes that a laser reader is an obvious expedient, well known in the art, for ease of use, the ability to see the scanning line to align the reading, increased range, and is familiar to the public.

Additional Remarks

13. The Examiner notes that it appears that an alternate interpretation, that of an electronic card/chip card with barcode might read on some of the independent claims.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (see PTO-892).

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel I. Walsh whose telephone number is (571) 272-2409. The examiner can normally be reached on M-F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Daniel I Walsh

Application/Control Number: 09/523,990

Art Unit: 2876

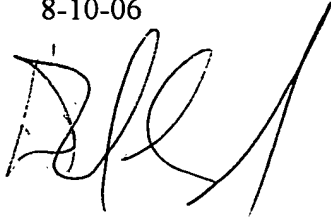
Page 13

D. Walsh

Examiner

Art Unit 2876

8-10-06

A handwritten signature in black ink, appearing to be 'D. Walsh', written over the printed name and date.